

What is claimed is;

1. A power system comprising:

a battery unit that includes a battery; and

an apparatus main body that operates on power supplied  
5 from the battery in the battery unit mounted thereat, the  
battery unit and the apparatus main body being engaged in  
information exchange, wherein:

a work volume value indicating a volume of work that  
the apparatus main body has been engaged in is transmitted  
10 from the apparatus main body to the battery unit over a  
predetermined cycle;

the battery unit calculates a cumulative work volume  
value of the work volume value at the apparatus main body and  
stores the cumulative work volume value therein, and the  
15 battery unit also detects a consumed battery capacity value  
indicating an extent to which a battery power has been consumed  
at the apparatus main body;

the cumulative work volume value, the consumed battery  
capacity value and a charged battery capacity value are  
20 transmitted from the battery unit to the apparatus main body  
over the predetermined cycle; and

the apparatus main body displays a battery use rate  
indicating an extent to which the battery has been used based  
upon the consumed battery capacity value and the charged  
25 battery capacity value, and also displays the cumulative work

volume value at the apparatus main body.

2. A power system according to claim 1, wherein:

different operating modes of the apparatus main body  
5 are classified in correspondence to varying levels of power  
consumption;

work volume values each corresponding to one of the  
operating modes are transmitted from the apparatus main body  
to the battery unit;

10 the battery unit calculates and stores therein  
cumulative work volume values corresponding to the individual  
operating modes of the apparatus main body and transmits the  
cumulative work volume values corresponding to the individual  
operating modes to the apparatus main body; and

15 the apparatus main body displays the battery use rate  
and the cumulative work volume values corresponding to the  
individual operating modes of the apparatus main body.

3. A power system according to claim 1, wherein:

20 the battery unit allows the battery to be charged with  
a charge apparatus;

the battery unit and the charge apparatus exchange  
information with each other; and

the cumulative work volume value stored in the battery  
25 unit is reset to 0 when the battery has been charged by the

charge apparatus.

4. A power system according to claim 2, wherein:

the battery unit allows the battery to be charged with  
5 a charge apparatus;

the battery unit and the charge apparatus exchange  
information with each other; and

the cumulative work volume value stored in the battery  
unit is reset to 0 when the battery has been charged by the  
10 charge apparatus.

5. A power system according to claim 1, wherein:

the battery unit allows the battery to be charged with  
a charge apparatus;

15 the battery unit and the charge apparatus exchange  
information with each other;

the battery unit detects the charged battery capacity  
value and transmits the detected charged battery capacity value  
to the charge apparatus;

20 the charge apparatus makes a decision based upon the  
charged capacity value transmitted from the battery unit as  
to whether or not the battery is in a fully charged state and  
ends a charge of the battery once the battery is judged to  
be in the fully charged state; and

25 the battery unit resets the consumed battery capacity

value stored in memory at the battery unit to 0 when the charge of the battery ends.

6. A power system according to claim 1, wherein:

5 the apparatus main body is a camera; and  
the work volume value is a number of frames of images photographed in the camera.

7. A power system according to claim 1, wherein:

10 the apparatus main body is a camera; and  
the work volume value is a length of time over which the camera has been engaged in use.

8. A camera comprising:

15 a battery unit on which a battery is mounted, that can be detachably loaded into the camera and supplies power to the camera; and

a function unit that executes camera functions, wherein:

as a function of the camera is executed, the function  
20 unit transmits information related to the executed function to the battery pack; and

the battery unit has a storage unit in which the information related to the camera function is stored.

25 9. A camera according to claim 8, wherein:

the function unit accumulates information related to the camera functions and transmits the accumulated information related to the camera functions to the battery unit; and

the storage unit stores therein the accumulated  
5 information related to the camera functions having been transmitted.

10. A camera according to claim 8, wherein:

the storage unit accumulates the information related  
10 to the camera function transmitted thereto and stores therein the accumulated information.

11. A camera having loaded therein a battery unit that includes a battery and a first storage unit, which operates  
15 on power supplied from the battery unit, comprising:

a function unit that executes a plurality of functions of the camera;

a control unit; and

a second storage unit, wherein:

20 the second storage unit stores therein cumulative information indicating a value that accumulate as a function is engaged; and

the control unit transmits to and stores into the first storage unit the cumulative information in the second storage  
25 unit as a first function is engaged, and then resets the

cumulative information at the second storage unit;

the control unit reads the cumulative information stored in the first storage unit of the battery unit from the battery unit as a second function is engaged;

5 the control unit obtains a sum of the cumulative information having been read and cumulative information stored in the second storage unit after resetting; and

the control unit uses the sum of the cumulative information thus obtained as new cumulative information to  
10 be transmitted to the battery unit.

12. A camera according to claim 11, wherein:

the control unit reads the cumulative information from the first storage unit as a function to be engaged first is  
15 engaged and transmits the cumulative information to the first storage unit as a function to be engaged last is engaged.

13. A camera according to claim 11, wherein:

a plurality of functions include at least one of an image  
20 photographing function, a monitor display function, a light emitting illumination function, an AF function and a zoom function; and

the cumulative information includes at least one of a number of images that are photographed, an accumulated time  
25 length of monitor display device ON time, a number of times

light has been emitted for illumination, an accumulated length of AF operation time and an accumulated length of zoom operation time.

5 14. A camera that operates on power supplied from a battery unit loaded therein having a chargeable secondary battery, a measurement unit that measures remaining battery power value in the secondary battery and a first storage unit in which the remaining battery power value is stored, comprising:

10 a function unit that executes a plurality of functions of the camera;

a control unit;

a second storage unit; and

a display unit, wherein:

15 the second storage unit stores therein cumulative information indicating values that accumulate as the functions are engaged;

the control unit transmits to and stores into the first storage unit the cumulative information as a first function is engaged, and then resets the cumulative information at the  
20 second storage unit;

the control unit reads the remaining battery power value and the cumulative information from the battery unit as a second function is engaged;

25 the control unit reads the remaining battery power value

as each of the plurality of functions is engaged, displays the remaining battery power value thus read at the display unit, and obtains a sum of the cumulative information having been read and cumulative information stored in the second  
5 storage unit;

the control unit uses the sum of the cumulative information thus obtained as new cumulative information to be transmitted to the battery unit.

10 15. A camera system comprising:

a battery unit having a chargeable secondary battery, a measurement unit that measures remaining battery power value in the secondary battery and a first storage unit in which the remaining battery power value is stored;

15 a camera that operates on power supplied from the battery unit loaded therein; and

a charge apparatus that charges the secondary battery of the battery unit, wherein:

the camera includes a function unit that executes a  
20 plurality of functions of the camera, a control unit, a second storage unit, and a display unit;

the second storage unit stores therein cumulative information indicating values that accumulate as the functions are engaged;

25 the control unit reads the remaining battery power value



as each of the functions is engaged and displays the remaining battery power value thus read at the display unit;

the control unit reads the cumulative information stored in the first storage unit as one of the functions is engaged;

5 the control unit obtains a sum of the cumulative information having been read and the cumulative information stored in the second storage unit;

the control unit transmits the sum to the battery unit for storage and also resets the cumulative information at the  
10 second storage unit as another function is engaged; and

the charge apparatus resets the cumulative information stored in the first storage unit when the secondary battery in the battery unit has been charged.

15 16. An electronic apparatus system comprising:

a battery unit having a chargeable secondary battery, a measurement unit that measures remaining battery power value in the secondary battery and a first storage unit in which the remaining battery power value is stored;

20 an electronic apparatus that operates on power supplied from the battery unit loaded therein; and

a charge apparatus that charges the secondary battery of the battery unit, wherein:

the electronic apparatus includes a function unit that  
25 executes a plurality of functions of the electronic apparatus,

a control unit, a second storage unit, and a display unit;

the second storage unit stores therein information that is altered as the functions are engaged;

the control unit reads the information stored in the  
5 first storage unit as one of the functions is engaged;

the control unit generates the information with new content based upon the information having been read and the information stored in the second storage unit;

the control unit transmits the information with new  
10 content to the battery unit for storage and also resets the information in the second storage unit as another function is engaged; and

the charge apparatus resets the information stored in the first storage unit when the secondary battery in the battery  
15 unit has become charged.